

ABSTRACT OF THE DISCLOSURE

A network and a coupling device for connecting two segments in such a network. The coupling device has means (510 for measuring the slot time configured in the users by means of so-called GAP queries with which active users (201...206) using the PROFIBUS DP protocol for data transmission

5 cyclically check whether new users have been connected to the network. Based on this slot time, coupling devices obtain information on the extent of the network, which is required for certain monitoring mechanisms. Further, a network and a coupling device for connecting segments in such a network, which has means (63, 64, 73, 78) for detecting corruption of a message by

10 faults on a segment (16) and blocking the onward transmission of messages received on the faulty segment (16). The coupling devices (22, 23) connected to the faulty segment (16) block and reauthorize onward transmission almost simultaneously so that no unidirectional connection is established.